

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D117-837 Rev. B AND
INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D117-837 Rev. 1
REF. TCCA STC: SH13-22
REF FAA STC: SR03353NY
REF EASA STC: 10056760

1.0 Purpose

The purpose of this Dart Service Instruction (DSI) is to upgrade the D5203-041 Strut Assembly, provided with the D117-837-011 Heli-Utility-Basket at CHG 006, to a new D5705-041 Strut Assembly in order to improve durability in service. The D5705-041 Strut Assembly can also be easily locked in place when the basket is not in service.

2.0 Installation of DSI 9819-011

- 2.1 Remove D4784-011 Basket Assy per Section 25.1 of ICA-D117-837.
- 2.2 Remove and discard existing D5203-041 Strut Assy and D5205-1 Bracket. Discard the hardware used to attach the D5205-1 Bracket. Refer to ICA-D117-837 Figure 25-5. Remove D5204-1 Bracket with (item 390) nut per Aircraft Maintenance Manual.
- 2.3 Install D5706-3 Bracket onto D4784-011 Basket Assy rib using 2x AN3-14A bolts, 4x NAS1149D0363J washers and 2x MS21042L3 nuts as shown in Figure 3. Torque bolts to 20-25 in-lbs (2.3-2.8 N-m).
- 2.4 Install D5705-041 Strut Assy with 2x D5705-5 Spacers into D5706-3 Bracket using AN4-13 bolt, NAS1149D0463J washer, AN310-4 castellated nut and MS24665 cotter pin as shown in Figure 4. Install cotter pin per AC43.13-1B Chapter 7-127.
- 2.5 Install D5708-1 Clip on the inboard side of the basket. At the installer's discretion, drill a #30 (0.129 in) hole through the first wall of the basket rib approximately at center of the basket rib at the recommended location or at the alternative location as shown in Figure 5. Install 1x D5708-1 Clip using 2x NAS1149FN632P washers and an NAS1738B-4-2 rivet.
- 2.6 Temporarily lock the D5705-041 Strut Assembly in place on the basket using the D5708-1 Clip as shown in Figure 6.
- 2.7 Install D4784-011 Basket Assy onto the D4895-045/-047 Outboard Beam Assy using 4x D5106-041 Bracket Assy and secure with 4x MS17984-C418 Quick Release Pins. Refer to ICA-D117-837 Figure 25-3b.
- 2.8 Install the new D5706-041 Bracket Assy per Figure 1. Reinstall (items 390, 400) nut, cotter pin and NAS1149F0832P washer. Torque per Aircraft Maintenance Manual.
- 2.9 Secure D5705-041 Strut Assy by connecting MS17984-C410 Quick Release Pin as shown in Figure 2. Make adjustments to the D5705-041 Strut Assy rod ends as required and lock with NAS509-4C jam nuts. Maximum allowable number of threads shown is 16 (0.60 inches or 15.2 mm) for safety as shown in Figure 2. Secure NAS509-4C jam nuts using lock wire per AC43.13 or MS33540.
- 2.10 Update Aircraft Logbook to indicate installation of DSI 9819-011 Basket Strut Upgrade Kit.

3.0 Weight & Balance

There is negligible weight and balance change associated with the DSI 9819-011 upgrade.

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED
BY: 
D. SHEPHERD (DE # 02)

DATE: 19.01.10
CERT. NO.: SH13-22
ISSUE NO.: 2

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A	NEW ISSUE	RF	19.01.10
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
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CHECKED	VS	DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9819	SHEET 1 OF 7
APPROVED	VS	TITLE	SCALE
DE APPR.	DS	BASKET STRUT UPGRADE	NTS
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4.0 Updated Parts List

For D117-837-011 @ CHG 007, Parts List in ICA-D117-837 and IIN-D117-837 should be updated as follows:

Qty -011	Part Number	Description
X	D117-837-011	HELI-UTILITY-BASKET, LH/RH
1	D117-837-111	BASKET PROVISION MOUNTING KIT
1	D4784-011	BASKET ASSEMBLY, HEAVY DUTY, LH/RH
4	D5106-041	BRACKET ASSEMBLY
4	D5253-1	SHIM
1	D5705-041	STRUT ASSEMBLY (REPLACES D5203-041)
2	D5705-5	SPACER
1	D5706-041	BRACKET ASSY (REPLACES D5204-1)
1	D5706-3	BRACKET (REPLACES D5205-1)
1	D5708-1	CLIP
2	AN3-14A	BOLT
1	AN310-4	NUT, CASTELLATED
4	AN4-12A	BOLT
1	AN4-13	BOLT
4	AN4-13A	BOLT
2	MS21042L3	NUT
4	MS21042L4	NUT
1	MS24665-212	COTTER PIN
4	NAS1149D0363J	WASHER
8	NAS1149D0416J	WASHER
1	NAS1149D0463J	WASHER
1	NAS1149F0832P	WASHER
2	NAS1149FN632P	WASHER
1	NAS1738B-4-2	RIVET

For D117-837-011 @ CHG 006, the DSI 9819-011 Basket Strut Upgrade is available from Dart.

Qty -011	Part Number	Description
X	DSI 9819-011	BASKET STRUT UPGRADE
1	D5705-041	STRUT ASSEMBLY (REPLACES D5203-041)
2	D5705-5	SPACER
1	D5706-041	BRACKET ASSY (REPLACES D5204-1)
1	D5706-3	BRACKET (REPLACES D5205-1)
1	D5708-1	CLIP
2	AN3-14A	BOLT
1	AN310-4	NUT, CASTELLATED
1	AN4-13	BOLT
2	MS21042L3	NUT
1	MS24665-212	COTTER PIN
4	NAS1149D0363J	WASHER
1	NAS1149D0463J	WASHER
2	NAS1149FN632P	WASHER
1	NAS1738B-4-2	RIVET

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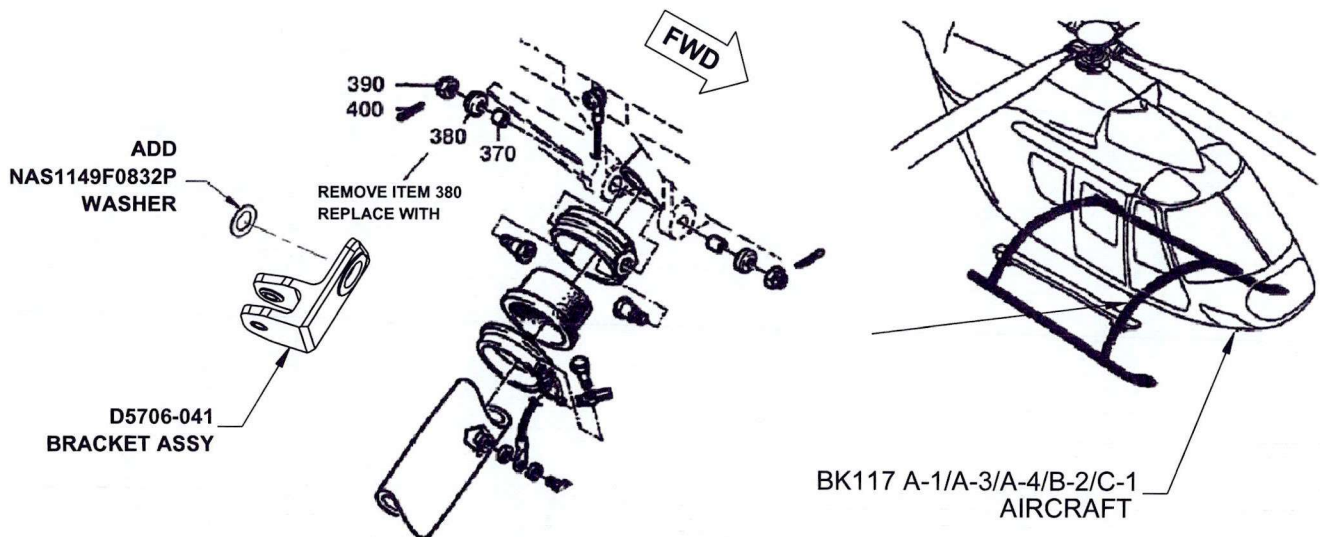


FIGURE 1. D5706-041 BRACKET INSTALLATION
(RH INSTALLATION SHOWN, LH OPPOSITE)

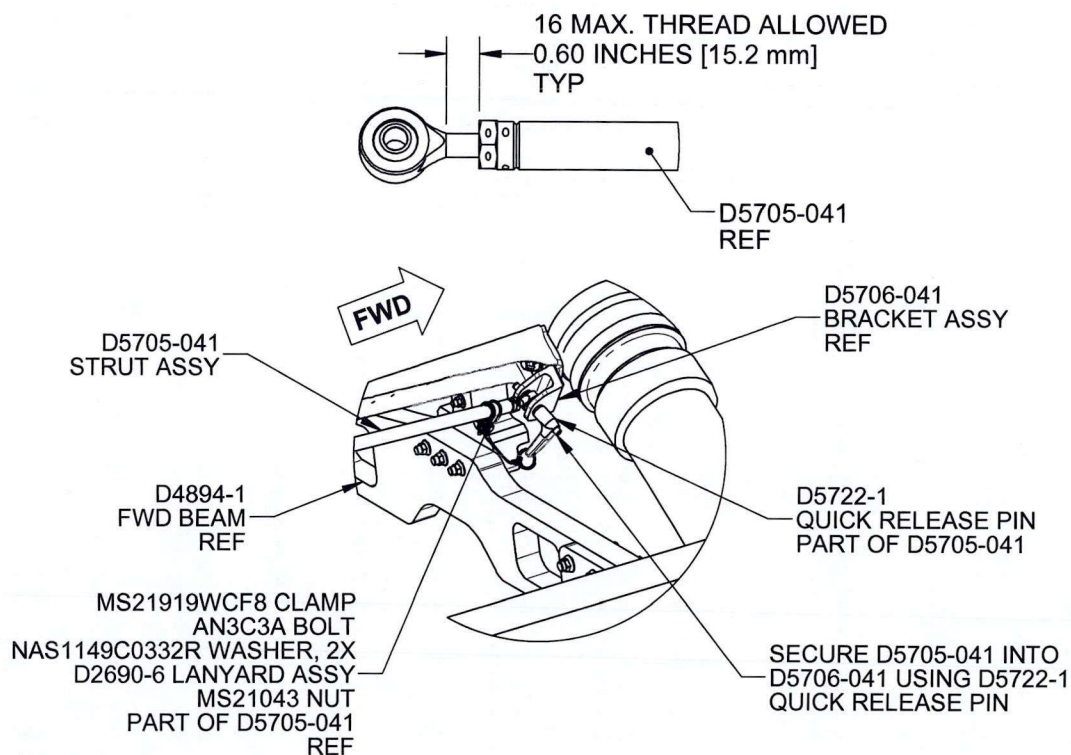
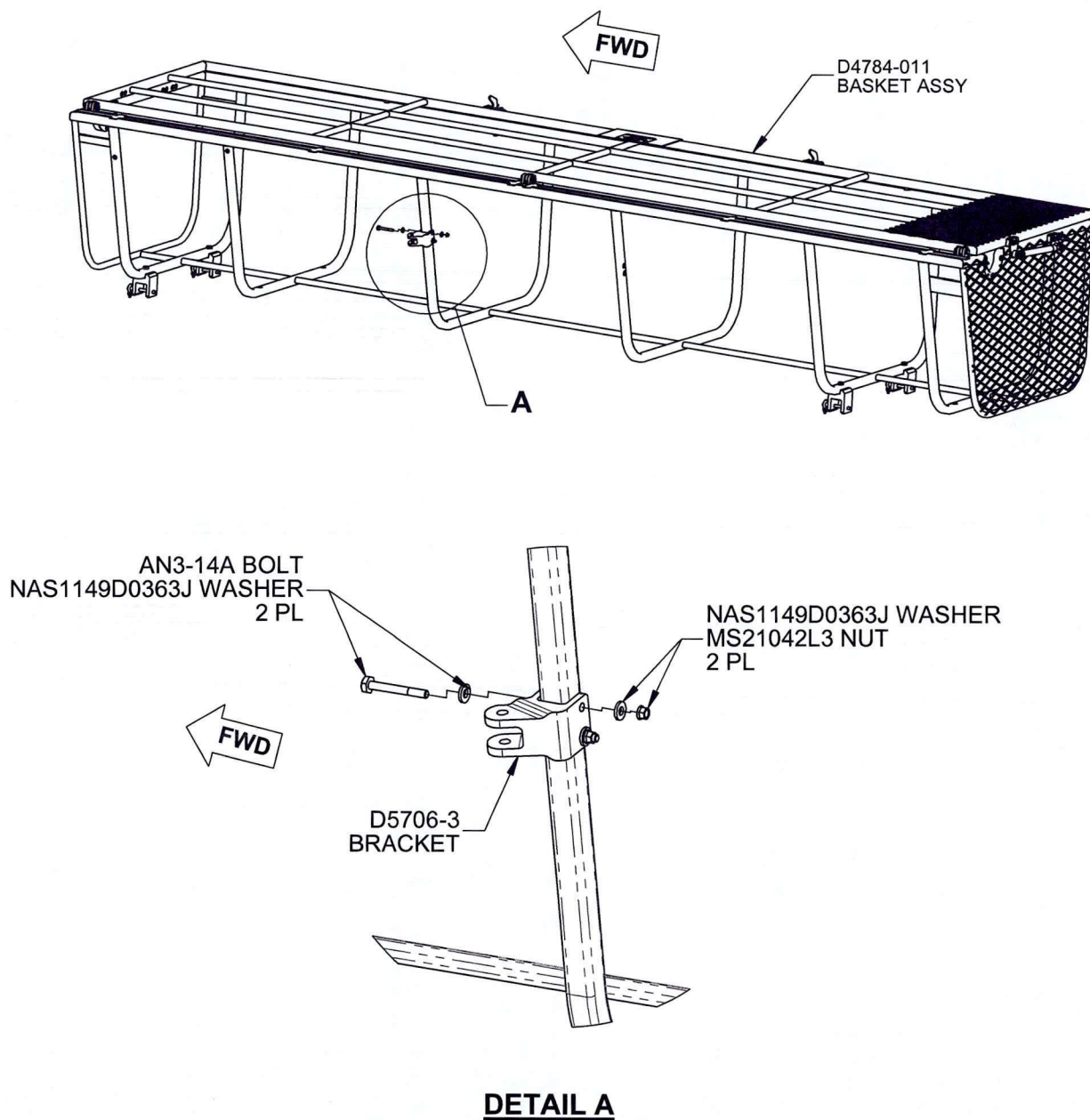


FIGURE 2. D5705-041 STRUT ASSY INSTALLATION INTO D5706-041 BRACKET ASSY
(RH INSTALLATION SHOWN, LH OPPOSITE. LOCK WIRE NOT SHOWN FOR CLARITY)

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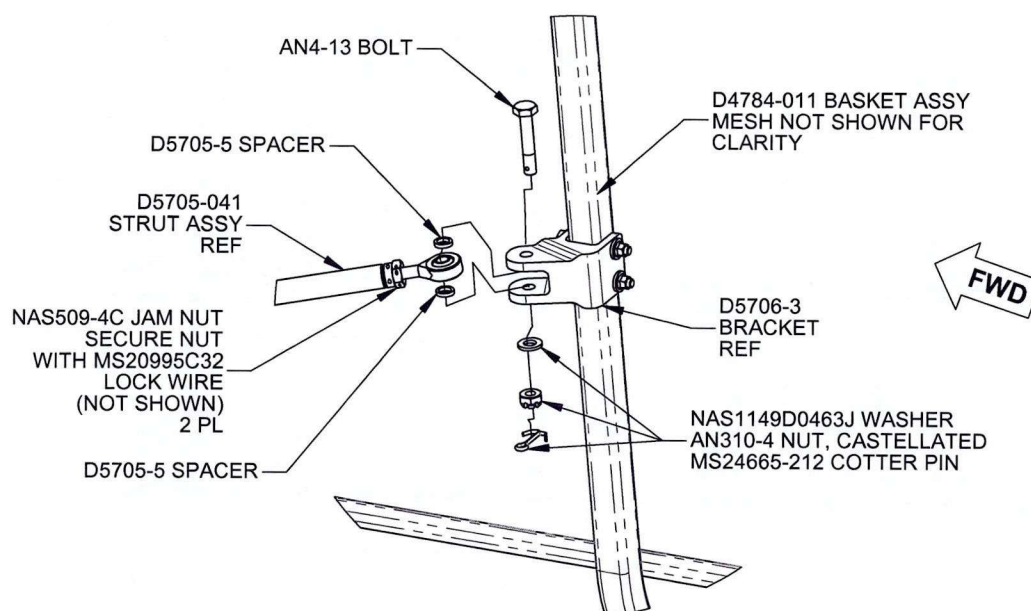
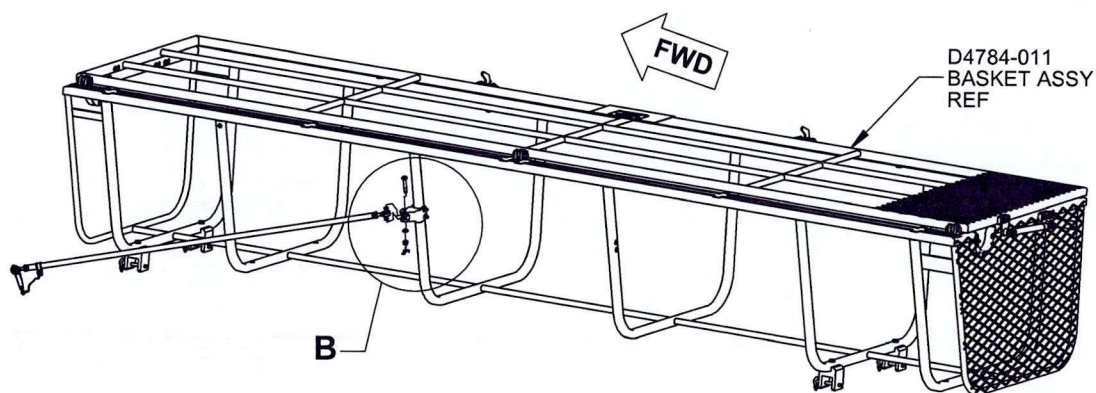
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**FIGURE 3. D5706-3 BRACKET INSTALLATION ONTO D4784-011 BASKET ASSY
(RH INSTALLATION SHOWN, LH OPPOSITE)**

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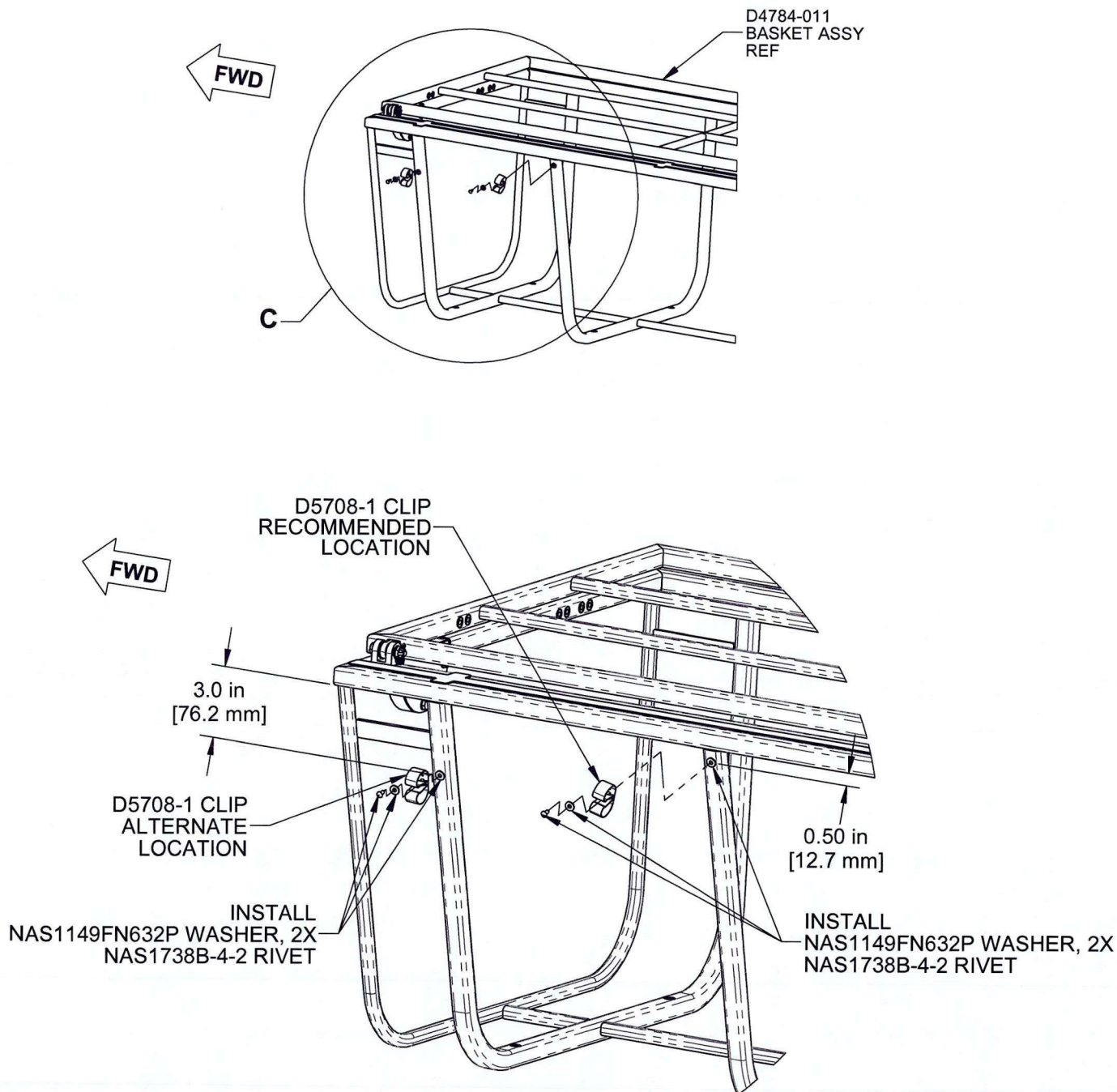


DETAIL B

**FIGURE 4. D5705-041 STRUT ASSY INSTALLATION INTO D5706-3 BRACKET
(RH INSTALLATION SHOWN, LH OPPOSITE)**

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**FIGURE 5. D5708-1 CLIP INSTALLATION ONTO D4784-011 BASKET ASSY
(RH INSTALLATION SHOWN, LH OPPOSITE)**

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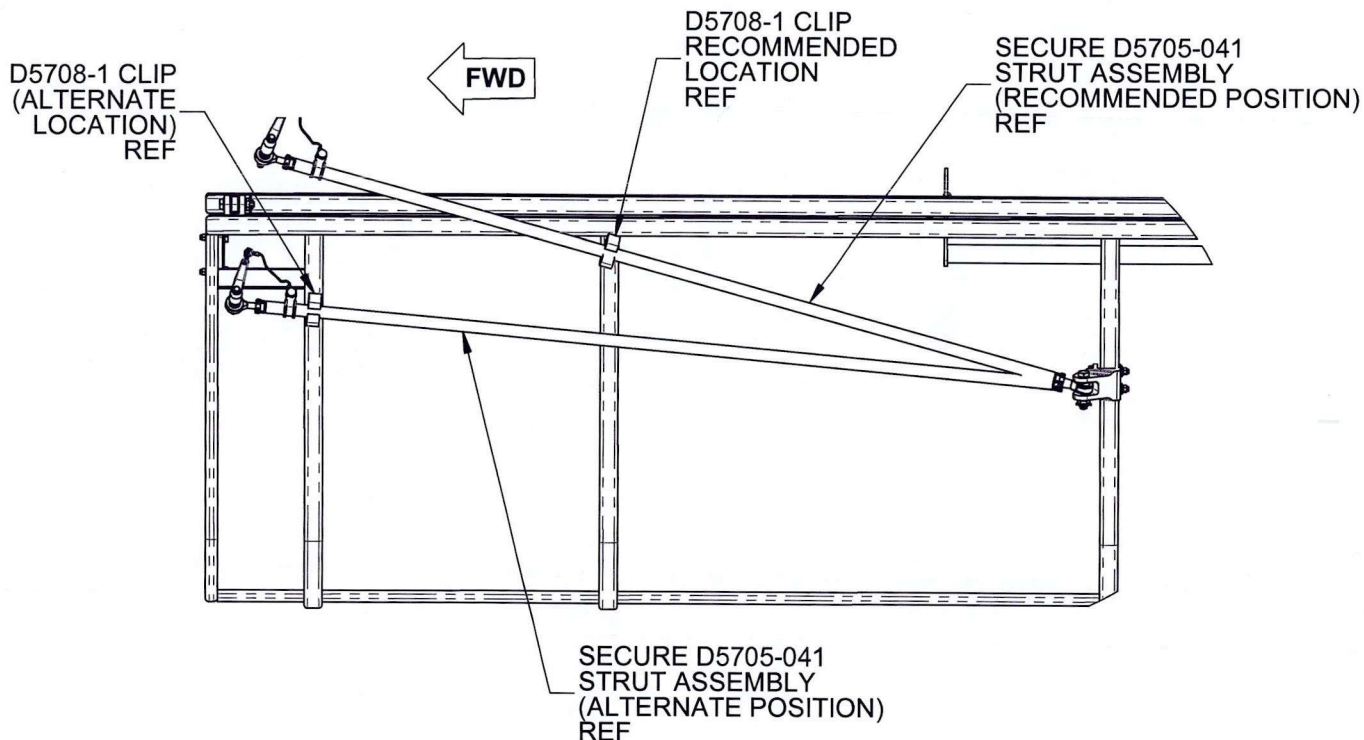


FIGURE 6. D5705-041 STRUT ASSY LOCKED IN POSITION
(RH INSTALLATION SHOWN, LH OPPOSITE)

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